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"Chia."—During the past summer my attention was called, whilst in Southern California, to a mealy preparation in popular use among the Indians, Mexicans and prospectors. On inquiry I found it was called "*Chia.*" Further examination proved that it was furnished by the seeds of *Salvia columbariæ*, Benth. The seeds are collected, roasted, and ground, in the native way, between two stones. This puts it in the condition in which I first saw it. It is used as a food by mixing it with water and enough sugar to suit the taste. It soon developes into a copious mucilaginous mass, several times the original bulk. The taste is somewhat suggestive of linseed meal. One soon acquires a fondness for it and eats it rather in the way of a luxury than with any reference to the fact that it is exceedingly nutritious besides. It is in great demand among the knowing ones who have a desert to cross, or who expect to encounter a scarcity of water, and what there is, of bad quality. By preparing it so thin that it can be used as a drink, it seems to assuage thirst, to improve the taste of the water and, in addition, to lessen the quantity of water taken, which in hot countries is often so excessive as to produce serious illness. As a remedy it is invaluable from its demulcent properties, in cases of gastro-intestinal disorders. It also holds a place among domestic remedies, for the same purpose that flaxseed occasionally does with us, i. e., a grain of the seed is placed in the eye (where it gives no pain) to form a mucilage by means of which a foreign body may be removed from the organ. I have found it of great service as a poultice. As a matter of archæological interest it may be noted that quantities of this seed were found buried in graves several hundred years old. This proves that the use of the seed reaches back into the remote past. Indeed I find several allusions to the name Chia in the second volume of Bancroft's great work on the *Native Races of the Pacific States*, pp. 232, 280, 347, 360. *Chianpinoli* appears to have been made by the so-called Aztec races from corn which was roasted and ground as the Chia was. From this, however, I conclude that the term Chia was then a generic name applied to meal derived from several sources. At present the name is almost restricted to the product of *Salvia columbariæ*. Chia was among the Nahua races of Ancient Mexico as regularly cultivated as corn, and often used in connection with it. I would state that my attention was first called to it by Mr. Kennedy, of Fort Tejon, California, a gentleman whose long and varied experience in that region makes him good authority upon all its products.—Dr. J. T. Rothrock, *Wilkesbarre, Pa.*

The new Aphrodisiac, Anti-rheumatic, etc., over which a few doctors are going into ecstasy, and by which certain drug venders hope to realize a small fortune, turns out to be an old, well known plant. Of course, *for business reasons*, it is best that the name and affinities of the herb should remain as obscure as possible. However, it is none the less *Bigelovia veneta*, Gray (Proc. Amer. Acad. Vol. VIII, p. 638). As older names we may quote also *Baccharis veneta*, H. B. K., *Aplopappus* (*Aplodiscus*) *discoideus*, DC. (Prodr. 5, p. 350.). Whatever virtues it may have are

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likely to be shared by some near relatives, especially by such as *Bigelovia Menziesii*, Gray. The suspicion rises that ere long it will be consigned to limbo with Condurango *et id genus omne*.—DR. J. T ROTHROCK.

A VALUABLE WORK.—I do not wish to be understood as acting in the interest of the booksellers, but for the benefit of botanists who may otherwise fail to obtain a valuable work at a very low rate, I will say that Sidney S. Rider, Bookseller, Providence, Rhode Island, has for sale at nine dollars per copy:—*A General System of Botany, Descriptive and Analytical*, by Le Maout and Decaisne, translated by Mrs. Hooker. The orders are arranged by J. D. Hooker. The copies are new and perfect, and formerly sold for twenty-five dollars. But few remain on hand.—DR. J. T. ROTHROCK.

NOTES UPON SOME GRAMINEÆ.—This group of plants seems well represented in Jefferson County, Indiana, as the following account of a portion of a season's collection will show. We have no doubt that the researches of a whole season by one thoroughly enlisted in this department of Botany would add many species to our list, especially the smaller species and those less general in distribution. The county presents such a diversity of soil and surface as to warrant us in the expectation of equally diverse plant life, and when to this we add its border line of climate and its extremes of heat and cold, we will find another reason for the presence or looked for presence of species naturally of more northern or southern habitat. Along our creeks, in considerable abundance, flourishes *Leerzia oryzoides*, Swz., while every damp, open timber land is the home of the long wiry culms of *L. Virginica*, Willd. *Phleum pratense*, L., is our best hay making grass and economically of much importance, but it seems to be rather easily run out by the Red and White Clovers, or the more strongly rooting *Agrostis vulgaris*, With. For a short time its quality and purity remain excellent, but in the long run both it and the Clovers fall under the steady encroachments of the Red-top. *Vilfa vaginæflora*, Torr., grows plentifully in the clayey soil of the upper portion of the Ohio River bluffs. Its dry and scarious appearance after a season of remarkable moisture, would lead us to think that here it can be of little value as a food stuff for our cattle, but being a tenant of very poor soil, where nothing else seems to take hold, it asserts its usefulness. We suppose that we have found *V. Virginica*, Beauv., in many of the open commons. *Agrostis perennans*, Tuck., appears in fruit late in the fall along the water courses of the richer woodlands. *A. vulgaris*, With., is our most common meadow grass, seeming to find in the soil here those conditions that afford the readiest support. It may be said to be the essential grass of our meadows, and the dependence of the farmer. *A. alba*, L., is found sparingly along the grassy borders of small streams. *Cinna arundinacea*, L., grows quite sparingly in our open woods and occasionally straggles into the damper portions of a few meadows. Of the genus *Muhlenbergia* we have found five species, viz., *M. sobolifera*, Trin., *M. Mexicana*, Trin., *M. sylvatica*, T. & G., *M. Wildenovii*, Trin., and *M. diffusa*, Schreber. The first, *M. sobolifera*, is common in the open hilly woods running back from the Ohio River, while *M. Mexicana* generally appears in all cultivated ground. *M. sylvatica* and *M. Wildenovii* are found in small patches in most hilly and slightly timbered woodlands, while *M. diffusa* attains its greatest luxuriance in our very door yards, often making a dense matting by the interweaving of its numerous branches. *Brachyelytrum aristatum*, Beauv., is almost confined to a few damp woods. In nearly every sandy field may be found an abundance of *Aristida gracilis*, Ell., with here and there an intermingling bunch of *A. dichotoma*, Michx. *A. ramosissima*, Engelm., is very limited in its distribution, but in a few old sandy commons it occurs quite abundantly. Another intruder in our door yards and not a stranger to the public roads is *Eleusine Indica*, Gærtn. *Tricuspis sesleroides*, Torr., is rare, having been found in but a few patches along the Ohio. We would again call attention to a grass already mentioned in the BULLETIN, viz., *Diarrhena Americana*, Beauv., which, while limited in its distribution, is a little re-

markable in the profusion of its growth. The writer happened upon a most luxuriant patch of not less than one-fifth of an acre during one of his summer excursions. *Dactylis glomerata*, L., is occasionally met with about the edges of old fields. *Eatonia Pennsylvanica*, Gray, is quite local to a few damp places in the neighborhood of running water. *Glyceria nervata*, Trin., is common along most of the smaller rivulets of the meadows, while in a single mucky swamp we gathered a few specimens of *G. fluitans*, R. Br. *Poa compressa*, L., with its wiry stems is scattered everywhere, but always in quite small quantities. *Eragrostis reptans*, Nees., is pretty common in all of our wet timber and often becomes remarkable for its size, leading one from a superficial examination to regard it *E. pilosa*, Beauv., or *E. Purshii*, Schr. In the dry sandy fields, however, and along the Ohio we meet the more typical forms of this species. *E. pœoides*, Beauv., var. *megastachya* is abundant in cultivated grounds and also occurs along roads. We have met several specimens in which many spikelets of this variety contain but 1–3 flowers. *E. pilosa*, Beauv., is not uncommon about the river bank during September and October, and it also presents some variations from the typical forms. *E. Frankii*, Meyer, is found sparingly along the highways and also in a few old fields from July to October. *E. Purshii*, Schred., abounds along most of the public roads and also to some extent in grainfields and open pastures. *Festuca nutans*, Willd., is occasionally met with along a few of the smaller water courses of sparsely timbered land. In a few old grain fields we find, here and there, *Bromus secalinus*, L., but it is rare. *B. ciliatus*, L., seems to grow pretty generally in our richer woods, but about the base of the cliff rocks of the Ohio and in similar places along the larger creeks it seems to thrive most vigorously. *Uniola latifolia*, Michx., is quite a rare grass, a few little patches seeming to find congenial spots on a damp hillside of the Ohio. Along the rich shady banks of a few little brooks we have observed sparing growths of *Elymus Virginicus*, L., and also *E. Canadensis*, L. *E. striatus*, Willd., is common in all rocky woods and also along some of the larger creeks. *Gymnostichum Hystrix*, Schreb., grows upon all the bluff rocks of the Ohio and also pretty generally about the cliffs of certain creeks. *Danthonia spicata*, Beauv., is a plentiful grass in most woodlands. *Paspalum setaceum*, Michx., is common in old meadows and also in newly cleared timber lands. *P. læve*, Michx., we gathered in considerable abundance in a few damp meadows and observed it about the low banks of several water courses from July to October. *Panicum glabrum*, Gaudin., is more or less abundant from August to October in all the flat moist woods. *P. sanguinale*, L., is no small annoyance in our gardens, also being hardly less plentiful in many fields. *P. anceps*, Michx., and *P. agrostoides*, Spreng., we collected during August and September having found both species abundant in the wet and clayey meadows. *P. capillare*, L., seems scattered everywhere. Some depauperate forms of this species gathered in the woods seemed to lack entirely the common hairy character. On the banks of the Ohio we gathered a few specimens of *P. virgatum*, L. We have collected a few representatives of *P. latifolium*, L., in the fence rows, while in the more open woods we have gathered a large fruited and quite hairy depauperate form. *P. clandestinum*, L., is not uncommon in dense matted tufts along the banks of some of the smaller creeks. *P. microcarpon*, Muhl., we found quite plentifully during July and October in some of the poorer meadows and fence rows. *P. dichotomum*, L., and *P. depauperatum*, Muhl., are widely scattered and present many variations in appearance. They fruit from early in the summer until late in the autumn. *P. Crus-galli*, L., infests most cultivated grounds and we have met specimens which were over five feet high. *Setaria glauca*, Beauv., has appeared this year in unusual quantities throughout the county. As a grass of very poor quality for feeding purposes its appearance has been much deprecated by farmers. Now whether its abundance is due to a lighter growth of the other meadow grasses, thus failing to choke it down, or to a very wet season, I don't feel able to say. I would hear with pleasure of the observations of any others upon this point. *S. Italica*, Kunth., is cultivated to a small extent and is

also slowly finding a lodgment outside of cultivation. Late in October we happened upon a few bunches of *Andropogon furcatus*, Muhl., which leads us to think it rare here. However, if *A. furcatus* is rare *A. Virginicus*, L., is much more abundant than is desirable, being common everywhere. In fact, it and *Erigeron annuum*, Pers., are the enemies of our meadows, as both greatly spoil the quality of the hay. The only way by which the farmer can rid himself of them seems to be to turn up his meadow with his plow, a method frequently resorted to here.—A. H. YOUNG, *Hanover, Ind.*

UROMYCES LESPEDEZÆ, (Schw.)—Many botanists may have noticed the little fungus that grows so plentifully on the under surface of the leaves of *Lespedeza violacea*, Pers. I sent some of the fungus-covered leaves to Chas. H. Peck, Esq., of Albany, N. Y., and I think his answer may be of interest to other botanists. "The fungus you send on the leaves of *Lespedeza violacea* was first described by Schweinitz, in his *Syn. Fung. Car., No.* 498, under the name *Puccinia Lespedezæ-polystachiæ*, but afterwards finding the fungus more abundant on *Lespedeza violacea* than on *L. polystachia*, he changed its name in his *Syn. N. A. Fungi, Trans. Am. Philos. Soc., New Series, Vol. IV, p.* 296, to *Puccinia Lespedezæ-violaceæ*. It does not belong to the genus *Puccinia* as now understood, but to the genus *Uromyces* and the name has generally been written *Uromyces Lespedezæ-violaceæ*, Schw., but inasmuch as this name is objectionable both because of its compound character and because of its implied limitation of the habitat of the fungus, which occurs on the leaves of *all* our species of *Lespedeza*, it seems to be best to make still another change and write *Uromyces Lespedezæ*, (Schw.) as the name of this fungus. Each black dot on the leaf is made up of a vast number of simple, ovate, pedicellate spores, densely crowded together." Mr. Peck also sent a sketch of a few of these spores magnified about 400 diameters and colored as they appear under the microscope when viewed by transmitted light, which I would like to show by a cut but am unable at present.—ED.

AN OLD FRIEND PUT TO NEW USES.—The following item seems to be going the rounds of the newspapers, and if true, adds a new interest to a very familiar friend:

"The Western Tannin Plant, *Polygonum amphibium*, L., which grows luxuriantly in the Missouri River Valley, seems destined to replace oak bark in tanning. It contains 18 per cent. of Tannin, while the best bark contains but 12 per cent., and large establishments employing it in Chicago, find that one-third more leather can be obtained with it than with a like quantity of bark. The process of tanning with it is identical with that with bark, but the leather is tougher, finer, and more durable, and receives a finer finish. The plant is an annual and can be mowed, dried, and stacked like hay." If these are facts *Polygonum amphibium* is destined to become an important product in some sections of our country.—ED.

AN interesting contribution to Ohio botany has been received from Dr. H. C. Beardslee, of Painesville, Ohio. It will be published in part, if not altogether, in the next number of the BULLETIN. It is a list of the *Hepaticæ* growing in Ohio, numbering some 68 species and based upon Austin's *Hepat. Bor. Amer.*

Contributions of notes are desired from all botanists, and such notes as are accepted will appear in the *number of the Bulletin issued immediately after their receipt*, as it is not intended to limit the size of the paper to four pages if the amount of matter will justify an enlargement.